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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/533,402	12/06/2005	Frank Wegner Donnelly	R296 0036/BMG	4130
720	7590	09/28/2007	EXAMINER	
OYEN, WIGGS, GREEN & MUTALA LLP			CUEVAS, PEDRO J	
480 - THE STATION			ART UNIT	PAPER NUMBER
601 WEST CORDOVA STREET			2834	
VANCOUVER, BC V6B 1G1				
CANADA				
MAIL DATE		DELIVERY MODE		
09/28/2007		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)
	10/533,402	DONNELLY, FRANK WEGNER
	Examiner	Art Unit
	Pedro J. Cuevas	2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 13 August 2007.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-14 is/are rejected.
- 7) Claim(s) 15 and 16 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 28 April 2005 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____ .
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)	5) <input type="checkbox"/> Notice of Informal Patent Application
Paper No(s)/Mail Date _____ .	6) <input type="checkbox"/> Other: _____ .

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed on August 13, 2007 have been fully considered but they are not persuasive.
2. In response to applicant's argument that "None of the cited references teach or suggest the use of such an excitation system in the context of claims 1 and 9.", a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.
3. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).
4. In response to applicant's argument that "There is no suggestion of the use of capacitors for exciting the generator of Edelson - capacitors are only mentioned for use in filtering chopper output.", the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-7 and 9-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,129,328 A to Donnelly in view of U.S. Patent No. 6,198,238 B1 to Edelson.

Donnelly disclose the construction of a gas turbine locomotive fueled by compressed natural gas, comprising:

a turbine prime mover (15);

an induction alternator (16);

a naturally commutated cycloconverter (column 3, lines 32-39) connected to said induction alternator; and

a control circuit (39) to control said cycloconverter.

However, it fails to disclose an excitation system for said induction alternator comprising a plurality of static capacitors and switches and a control circuit to control said excitation system.

Edelson teach the construction of a high phase order cycloconverting generator and drive means comprising:

an excitation system (column 12, lines 33-41 and lines 50-62) for said induction alternator comprising a plurality of static capacitors (column 2, lines 32-35) and switches (column 1, lines 57-67 and column 2, lines 21-31);

a control circuit (SCR) to control said excitation system; and

a plurality of silicon controlled rectifiers (29)

for the purpose of manipulating the output of said generator, the system producing electrical output of the desired voltage, current, frequency, and phase.

It would have been obvious to one skilled in the art at the time the invention was made to use the excitation system and control circuit disclosed by Edelson on the gas turbine locomotive disclosed by Donnelly for the purpose of manipulating the output of said generator, the system producing electrical output of the desired voltage, current, frequency, and phase.

7. With regards to claim 2-3, 11, Edelson discloses a plurality of parallel windings (Figure 12) comprising three parallel windings (Figure 11), thereby allowing elimination of a transformer.

8. With regards to claims 4 and 10, Donnelly discloses an independent alternating current power source (35) in circuit with said cycloconverter to permit starting of the prime mover using the induction alternator.

9. Claims 8 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,129,328 A to Donnelly in view of U.S. Patent No. 6,198,238 B1 to Edelson as applied to claims 1-7 and 9-13 above, and further in view of U.S. Patent No. 6,308,639 B1 to Donnelly et al.

Donnelly in view of Edelson disclose the construction of a gas turbine locomotive as disclosed above.

However, it fails to disclose said controller being a programmable logic controller.

Donnelly et al. teach the construction of a hybrid battery/gas turbine locomotive comprising a controller being a programmable logic controller (30) for the purpose of monitoring the state of the battery charge and the ambient temperature.

It would have been obvious to one skilled in the art at the time the invention was made to use the programmable logic controller disclosed by Donnelly et al. on the gas turbine locomotive

disclosed by Donnelly in view of Edelson for the purpose of monitoring the state of the battery charge and the ambient temperature.

Allowable Subject Matter

10. Claims 15 and 16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. The following is a statement of reasons for the indication of allowable subject matter.

The prior art of record, taken alone or in combination, does not teach the construction of a turbogenerator as described on and including all the disclosed limitations of dependent claims 15 and 16, comprising:

a first capacitor and a switch connected in series; and

a second capacitor; connected in parallel between each pair of arms of each of the parallel windings.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892.

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pedro J. Cuevas whose telephone number is (571) 272-2021. The examiner can normally be reached on M-F from 8:30 - 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on (571) 272-2044. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Pedro J. Cuevas
September 20, 2007

